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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/719,028	11/24/2003	Masao Nakagawa	031290	9157

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ARMSTRONG, KRATZ, QUINTOS, HANSON & BROOKS, LLP
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EXAMINER

GESESSE, TILAHUN

ART UNIT PAPER NUMBER

2618

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/08/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/719,028	Applicant(s) NAKAGAWA, MASAO	
	Examiner Tilahun B. Gesesse	Art Unit 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 13 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 12/13/06 have been fully considered but they are not persuasive for the following reasons.

On page 8, paragraph of response applicant argued that Santhoff fails to disclose any delay between the reception and transmission of the UWB pulse and the delay taught by Weaver is for CDMA wideband spread spectrum signal and applicant conclude that these reference may not be combined to teach a transmitting time which is different from the reception time by pulse unit.

The examiner disagrees. Weaver teach wideband spread spectrum signal and transmitting time which different from reception time (see figure 3) in which Weaver discloses a repeater with delay time and switch which turns on and off based on reception and transmission of wideband signals (see column 10, line 60-column 11 line 32 and column 13, line 65 through column 14, line 21 and figures 3 and 5). Therefore, delay and Weaver not by Santhoff teaches switching between transmission and reception and applicant argument is moot.

Weaver teaches wideband spread spectrum signal not ultra. However, Santhoff teaches ultra wideband (see paragraph 0036-0037).

One of ordinary skill in the art would have been motivated to modify Weaver's wideband spread spectrum signals by the teaching of Santhoff's ultra wideband pulse. Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time of the invention was made to improve weaver's wideband spread spectrum signal by

ultra wideband pulse, as evidenced by santhoff since UWB pulse is within noise floor than UWB does not interfere with the system frequency (see paragraph 0037). Weaver also teaches series segment wideband frequency (see figure 5), which is a transmitter delay from the receiver signals.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

On page 11 , second paragraph of response applicant argued that a sneak path wave between the transmitting side and receiving side can be resolved, and it is possible to easily realize a UWB communication system capable of carrying out bi-directional communications.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., a sneak path wave between the transmitting side and receiving side can be resolved, and it is possible to easily realize a UWB communication system capable of carrying out bi-directional communications) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

To sum up, the response to applicant's argument and prior art teaching, applicant's argument is not persuasive and rejection is maintained.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weaver Jr. et al (US 6,108,364) in view of Sunthoff (US 200400002346).

Claim 1, Weaver teaches a wideband spread spectrum repeater (see fig.4 and col. 11, lines 51- col.12, line 43 and abstract) comprising:

Weaver teaches a receiver for receiving wideband pulse signals (150 and 170 of fig.4).

Weaver teaches a transmitter for transmitting wide band pulse signals (see 180 and 160 of fig.4).

Weaver teaches a relay controller for transmitting pulse signals, which are received by said receiver, at transmitting timing different from the receiving timing by a pulse unit (see fig.4 and col. 11, lines 51- col.12, line 43 and abstract).

Weaver does not expressly teach ultra wideband signal. However, Sunthoff teaches ultra wideband relay (see page 7, paragraph 0079 and fig.13).

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then, it would have been obvious to an artisan of ordinary skill in the art at the time of the invention was made to use ultra wideband pulse in the system of Weaver, as evidenced by Sunthoff, since ultra wideband signal system have high time domain resolution and better perform in a multi-path environment.

Claim 2, Weaver teaches the relay controller includes a delay unit (156,176) that delays pulse signals received by said receiver (see fig.4 and col. 11, lines 51- col.12, line 43) .

Claim 3, Weaver teaches the relay controller deactivates (172 and 152 switches) the receiving feature said receiver the transmitting timing or causes output the receiver not to be supplied the transmitter (see fig.4, and col. 11, lines 51- col.12, line 43).

Claim 4, it is system claim which corresponds to apparatus claim 1, above. Therefore, it is analyzed and rejected for the same reason as set forth in the claim.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tilahun B Gesesse whose telephone number is 571-272-7879. The examiner can normally be reached on flexible schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on 571-272-7899.

The Central FAX Number is 571-273-8300. For patent related correspondence, hand carry deliveries must be made to the Customer Service Window (now located at the Randolph Building, 401 Dulany Street, Alexandria, VA 22314), and facsimile transmissions must be sent to the Central FAX number .

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

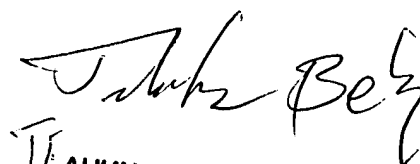
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TG

March 5, 2007

A handwritten signature in black ink, appearing to read "Teahun Geesesse". The signature is fluid and cursive, with the first name "Teahun" and last name "Geesesse" clearly distinguishable.

TEAHUN GEESSESSE
MARY EXAMINER